

To: Chairperson and Authority Members **Date:** June 13, 2002
From: Mehdi Morshed, Executive Director
Subject: Agenda Item 5—System Alternatives Definition

Discussion

As part of the program environmental process, other overall system alternatives that respond to the purpose and need for the proposed high-speed train system will be considered, compared, and evaluated in the Draft Program EIR/EIS. The range of reasonable alternatives will include a No-Build Alternative, a Modal Alternative, and a High-Speed Train Alternative. The Modal Alternative will consider improvements to other transportation modes (highway, aviation, and conventional rail) serving the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego.

No-Build/No-Action Alternative

In addition to the environmental setting, the No-Build Alternative will provide information to serve as the baseline for comparing the potential environmental impacts of all alternatives being studied. The No-Build Alternative will consider the state's transportation system (highway, air, and conventional rail) as it currently exists and as it would be in the future after implementation of programs or projects currently programmed for implementation and projects that are expected to be funded by 2020. The "No-Build" Alternative will address the same general geographic area serving the same intercity travel market as the proposed high-speed train system. The No-Build Alternative will be prepared to satisfy both State and Federal requirements for an alternative that does not include any new action or project beyond what is already committed.

Modal Alternative

There are currently four options for intercity travel between the major urban areas of California: vehicles on the interstate highway system and state highways, commercial airlines serving airports between San Diego and Sacramento and the Bay Area, conventional passenger trains (Amtrak) on freight and/or commuter rail tracks, and long distance commercial bus transit. Air and highway are clearly the predominant modes for trips over 150 miles in length. The Modal Alternative will describe hypothetical future improvements consisting of expansion of highways, airports, and intercity rail systems serving the same geographic areas as the proposed High-Speed Train System. The Modal Alternative will use the same inter-city travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership forecasts in 2020. For purposes of this analysis this projected travel demand will be allocated to the highways and airports and passenger rail described under the No-Build Alternative, and used to identify additional improvements or facilities expansions that could serve the intercity travel demand, regardless of funding potential and in lieu of high-speed train service as part of the transportation system. The Modal Alternative represents a reasonable alternative to the proposed High-Speed Train System in the Program EIR/EIS; therefore, the Modal Alternative is a "hybrid" alternative, comprised of the most practical and feasible future transportation improvement options for existing modes of intercity transportation.

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High-Speed Train Alternative

The Authority has defined a proposed statewide high-speed train system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State-of-the-art high-speed steel-wheel-on-steel-rail technology will be considered for the system that would serve the major metropolitan centers of California. This technology must also be capable of sharing tracks with other services at reduced speeds in heavily urbanized areas. A non-electrified or conventional steel-wheel-on-steel-rail technology will be considered for the line from Los Angeles to San Diego via Orange County. This service would require a transfer to the electrified high-speed service (at Los Angeles Union Station or Orange County) for trips between points south of Los Angeles/Orange County and the major urban centers to the north. The High-Speed Train Alternative includes the corridor and station options described in the screening evaluation.